U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Charleston WV Chemical Leak - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region III

POLREP #8
SContinuing operations
uCharleston WV Chemical Leak
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To:	
From:	Dennis Matlock and Melissa Linden, On-Scene Coordinators
Date:	3/3/2014
Reporting Period:	through 3/2/2014

1. Introduction

1.1 Background

Site Number:		**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	CERCLA	**Response Type:**	Emergency

Response Lead:			**Incident Category:**	**Removal Assessment**
NPL Status:			**Operable Unit:**	
Mobilization Date:	**1/9/2014**		**Start Date:**	**1/9/2014**
Demob Date:			**Completion Date:**	
CERCLIS ID:			**RCRIS ID:**	
ERNS No.:			**State Notification:**	
FPN#:			**Reimbursable Account #:**	

1.1.1 Incident Category

Tank failure and subsequent chemical release into the Elk River, Etowah, WV.

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1.1.2 Site Description

The Site consists of one breached tank, which is component to the facility, along with the soils beneath the tank, the pathway towards the Elk River, and the affected portion of the Elk River.

1.1.2.1 Location

The incident occurred at the Freedom Industries, located at 1015 Barlow

Drive, Charleston, Kanawha County, WV 25311.

1.1.2.2 Description of Threat

An imminent substantial endangerment to welfare and/or the public caused by a chemical release.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

WVDEP conducted the initial assessment of the scene, in response to an odor complaint to their Air Division. EPA mobilized to the Site and assumed a support role to WVDEP. EPA received reports through WVDEP that the chemical was identified as "Eastman Crude MCHM", which is a mixture of components, predominantly 4-methylcyclohexanemethanol. There is a licorice odor to the compound, which is caused by 4-(methoxymethyl) cyclohexanemethanol. The material was classified as non-toxic. However, analytical testing for this particular compound, did not exist at the time of the release. Since then, WVAWC, assisted by Dupont, has developed a method and continued to sample the processed water at the drinking water plant.

The spill occurred from one of three tanks that contain the MCHM/PPH. The secondary containment around the tanks was inadequate and failed. It was estimated by the RP in a letter dated January 23, 2014, that 10,124 gallons of the chemical were released. However, the volume of the chemical that actually entered the river is uncertain.

The RP utilized facility personnel and initiated the hiring of contractors to place

boom along the left descending bank of the Elk River, adjacent to the area of the spill. The RP also hired contractors to conduct land clean-up operations.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

See previous POLREPs for site information and actions conducted from January 9, 2014 through February 23, 2014.

2.1.2 Response Actions to Date

During this reporting period, the facility continued to empty the storage tanks on the site. The last of the salable material was shipped off site February 25, 2014. Two tanks were reported to still have fatty acid heels that need to be removed. All other tanks on site were reported empty and ready to be cleaned.

The facility's contractor collected the weekly water sample from the intercept trench for treatability testing on February 27, 2014. A water sample was also collected from the east side of the tank containment wall for MCHM/PPH analysis.

Facility representatives met with the South Charleston Waste Water Treatment Plant officials to discuss the potential for treatment of the site waste water at the plant.

The RP's contractor conducted 24-hour monitoring of the sumps and intercept trench. Pumping operations from the sumps, both inside and outside of the containment area and the intercept trench, occurred as needed. All of the water that

was collected was pumped into on-site tanks and will be tested and disposed of in accordance with applicable state and federal requirements.

The contractor removed the trench boxes from the intercept trench and installed a High Density Polyethylene (HDPE) liner in the trench. A geotextile fabric layer was installed on top of the HDPE liner and the trench was filled with gravel. A 36" vertical pipe was installed in the sump created in the trench. The water was pumped from the sump in the trench to tanks in the containment area on an as-needed basis. The pumping frequency varied between approximately 3 to 7 hours, depending on precipitation events, snow/ice melting, and whether they are pumping water from sumps/culverts within the containment area.

At the request of WVDEP, the facility installed an inflatable plug in the oil/water separator sump after WVDEP reported observing water leaking from the outfall.

The facility shipped a trial load of approximately 3,000 gallons of waste water from the Poca Blending Facility (Poca) in Poca, WV to Waste Management DSI in Hurricane, WV (DSI) for solidification. The shipment went as planned and a sample of the solidified product was collected. The facility was awaiting Synthetic Precipitation Leaching Procedure (SPLP) test results for the sample as well as legal approval to ship the remainder of the waste water from Poca to DSI. A 55-gallon drum was also filled the waste water at Poca Blending to be stored for future use.

A load of clean fill material was delivered to the site for use in the ditch that was cleaned out along Barlow Road. The

fill material was spread in the ditch to a grade to improve drainage flow in the ditch and resuce water ponding.

The facility removed approximately 6-9" of soil and gravel from the vac trailer parking area. The soil was removed to reduce the possibility of cross contamination from the old loading of trucks in this area. During excavation, there was a strong petroleum odor and black stained soil was observed. There was also an MCHM odor observed. The soil and gravel was placed in roll offs for disposal at the landfill. The area was backfilled with clean gravel and the trailer was placed back in the area.

The facility excavated an area outside the east containment wall. They were attempting to locate the end of the culvert pipe to determine the source of the off-site water. During the excavation, water began pouring from beneath the footer outside on the containment wall into the excavated hole. The hole was left open and the water eventually flowed back inside the containment wall via the culvert pipe where the water was being pumped to storage. The contractor moved inside the containment wall and excavated at the same location but no pipe or water was uncovered. A bed of gravel under the containment area may be the source of the water.

The facility's contractor replaced the dirty booms in the river. They reported no visible sheen on the river water or any scent of product at the river during the trade out of booms.

As of the end of this reporting period, 77,836 gallons of product remain at the Poca location in double walled Baker Tanks.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

The Responsible Party is identified as Freedom Industries, and is under orders from WVDEP. There are four orders and one revision to an order. Orders include: a cease and desist order; an order to develop a plan to empty all 14 tanks on Site; an order to remove all material from on-site above ground storage tanks (AST) by March 15, 2014; an order to report all on-site and all information of MCHM/PPH; and an order to begin to dismantle all ASTs on or before March 15, 2014.

2.1.4 Progress Metrics

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2.2 Planning Section

2.2.1 Anticipated Activities

2.2.1.1 Planned Response Activities

EPA, EPA's contractors, and the USCG will support WVDEP's oversight of removal activities. The priority at this time is to contain the source and prevent further discharge of contaminants to the river. Future activities will include an assessment of the extent of contamination on Site, preparing a plan for tank demolition procedures, and a

site remediation plan.. EPA will provide support to WVDEP with sampling activities, and other technical support, upon request.

2.2.1.2 Next Steps

- Divert the runoff water that is entering the containment area;
- Maintain/improve as necessary the intercept trench between the Site and the Elk River;
- Dismantle the MCHM tanks on Site and provide the necessary portions of the tanks to investigative entities;
- Remove the three MCHM tanks from the Site.

2.2.2 Issues

- There is the possibility of an unknown amount of MCHM/PPH and potentially other chemical liquids may exist beneath the tank;
- There is an unknown amount of MCHM/PPH that has seeped into the soils/materials located along the river bank;
- There is a large amount of water (approximately 450,000 gallons), potentially contaminated with MCHM, stored in tanks on Site.

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

Estimated Costs	Budgeted	Total To	Remaining	% Remai

		Date		ning
Extramural Costs				
START	$180,056.00	$127,593.07	$52,462.93	29.14%
Intramural Costs				
Total Site Costs	**$180,056.00**	**$127,593.07**	**$52,462.93**	**29.14%**

*** The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.**

2.5 Other Command Staff

2.5.1 Safety Officer

Freedom Industries
EPA OSC on Site (Advisory Role)

2.5.2 Liaison Officer

EPA Mark Ferrell

2.5.3 Information Officer

3. Participating Entities

3.1 Unified Command/Facility (Freedom Industries)

WVDEP
USEPA

USCG
Freedom Industries

3.2 Cooperating Agencies

West Virginia Department of Health and Human Resources (WVDHHR)
National Guard
West Virginia Department of Natural Resources (WVDNR)
Ohio River Valley Water Sanitation Commission (ORSANCO)
West Virginia American WaterWorks Company (WVAWC)
Chemical Safety Board (CSB)
Center for Disease Control (CDC)
Agency for Toxic Substances and Disease Registry (ATSDR)
West Virginia Division of Highways (WVDOH)
Federal Bureau of Investigation (FBI)
Occupational Safety and Health Administration (OSHA)

4. Personnel On Site

WVDEP
USEPA
START (TechLaw)
Freedom Industries
Civil & Environmental Consultants
Diversified Services LLC

5. Definition of Terms

No information available at this time.

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.